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ture increases. In case of inventive Base 2, its Total Shear Modulus $|G|$ at 80° C. (1.2×10^3) is below the values obtained for comparative Base 1 (2.0×10^3) and comparative Base 2 (2.0×10^3), this meaning that inventive Base 2 is softer at this temperature.

These results show that bases containing thermoplastic rubbers are hard and rubbery at temperatures around 40° C. (close to mouth temperature) and they become softer and more plastic when heated to temperatures around 80° C., more than bases containing standard random rubbers do.

This ability of the inventive bases to become softer and more plastic when increasing temperature would make them specially suited to produce chewing gums that are deposited or molded at high temperatures.

B. Chewing Gum Profiles

Inventive Gum 1 had a hard and rubbery chewing profile and surprisingly gave excellent bubbles which are larger in size than those obtained with a standard gum base (like Comparative Gum 2). Inventive Gum 2 also had a hard and rubbery chewing profile but bubble capacity was lower than Inventive Gum 1. Comparative Gum 1 had a soft, plastic chewing profile with poor bubble capacity. In fact, SBR 75:25 rubber is not used alone in bubble gum formulas, but blended with SBR 50:50. Comparative Gum 2 had a medium hard chew with equilibrated rubbery character and good bubbles. Comparative Gum 2 can be considered a typical bubble gum composition.

As the chewing profile of inventive Base 1 and inventive Base 2 were very rubbery, a new base composition (Inventive Base 3) was prepared, reducing the percentage of thermoplastic rubber and resin (glycerol ester of gum rosin) and increasing the amount of plasticizer (paraffin wax). Inventive Gum 3 had a texture that was very close to typical bubble gums (Comparative Gum 2), with the ability to give bubbles larger than average.

The present invention is not limited to the above embodiments and can be variously modified. The above description of the preferred embodiments, including the Example, is intended only to acquaint others skilled in the art with the invention, its principles, and its practical application so that others skilled in the art may adapt and apply the invention in its numerous forms, as may be best suited to the requirements of a particular use.

With reference to the use of the word(s) comprise or comprises or comprising in this entire specification (including the claims below), unless the context requires otherwise, those words are used on the basis and clear understanding that they are to be interpreted inclusively, rather than exclusively, and applicants intend each of those words to be so interpreted in construing this entire specification.

What is claimed is:

1. A chewing gum comprising:

- a water soluble gum portion; and
- a water insoluble base portion, wherein said base portion comprises an elastomer and an elastomer plasticizer, wherein said elastomer comprises a styrene-diene block

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copolymer, and wherein said styrene-diene block copolymer is present at a concentration of from about 2 weight percent to about 15 weight percent, based on total weight of said base portion.

2. The chewing gum of claim 1 wherein the styrene-diene block copolymer is styrene-butadiene block copolymer.

3. The chewing gum of claim 1 wherein the elastomer has a melt flow index at 190° C. of from about 0.5 g/10 minutes to about 20 g/10 minutes.

4. The chewing gum of claim 1 wherein the elastomer has a toluene solution viscosity (25 weight percent) of from about 0.5 Pa·s to about 25 Pa·s.

5. The chewing gum of claim 1 wherein the elastomer has a Shore A hardness of from about 60 to about 70.

6. The chewing gum of claim 1 wherein the styrene-diene block copolymer has a styrene content of about 20 weight percent to about 35 weight percent, based on total weight of the styrene-diene block copolymer.

7. The chewing gum of claim 1 wherein the elastomer plasticizer is present in the gum base at a concentration of from about 10 weight percent to about 90 weight percent, based on total weight of the gum base.

8. The chewing gum of claim 1 wherein the water insoluble base portion comprises between about 5 and about 50 weight percent filler.

9. The chewing gum of claim 1 wherein the elastomer has a total styrene concentration between about 15 and about 40 weight percent.

10. A chewing gum comprising:

a carbohydrate bulking agent in a concentration from about 5 weight percent to about 95 weight percent;

a gum base in a concentration from 5 weight percent to 95 weight percent;

wherein said gum base comprises an elastomer comprising a styrene-diene block copolymer; an elastomer plasticizer; and, between about 5 and about 50 weight percent filler; wherein said elastomer has a total styrene concentration between about 15 and about 40 weight percent, and wherein said styrene-diene block copolymer is present at a concentration of from about 2 weight percent to about 15 weight percent, based on total weight of said gum base.

11. The chewing gum of claim 10 further comprising a flavor.

12. The chewing gum of claim 10 further comprising a high intensity sweetener.

13. The chewing gum of claim 12 wherein the high intensity sweetener is selected from the group consisting of aspartame, sucralose, acesulfame-K, saccharin, thaumatin, alitame, neotame, cyclamate, perilla derived sweeteners, stevia derived sweeteners, monatin, monellin, chalcones, and combinations thereof.

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